

June 6, 2005

Mr. Charles Huang
Millie and Severson, Incorporated
3601 Serpentine Drive
Los Alamitos, CA 90720

Subject: Excess Soil Stockpile Profiling
Lot 8-Former C-6 Facility-Harbor Gateway Center
Los Angeles, California

Dear Mr. Huang:

This letter has been prepared to document the profiling of excess soil for export from the Harbor Gateway Center to the Boeing Seal Beach facility.

Approximately 2,000 cubic yards of soil was generated from Lot 8 during construction activities and stockpiled on-site. The soil was derived from the within the top 12 feet of the site which received closure from the Los Angeles Regional Water Quality Control Board in 2003. This soil is excess to the current site construction requirements and cannot be incorporated into the grading plan.

Rather than disposing of the soil, Boeing Realty Corporation (BRC) will relocate the soil to Boeing Seal Beach Facility for use on-site. In order to confirm that the soil could be transported as non-hazardous material and suitable for use at the Seal Beach facility, two soil samples were collected at approximately 1 foot below the stockpile surface and analyzed by a California-certified laboratory for the following compounds:

- Total petroleum hydrocarbons (TPH) by EPA Method 8015;
- Volatile organic compounds (VOCs) by EPA Method 8260B;
- Semi-volatile organic compounds (SVOCs) by EPA Method 8270C;
- Polyaromatic hydrocarbons (PAHs) by EPA Method 8310;
- Polychlorinated biphenyls (PCBs) by EPA Method 8082;
- Metals by EPA Methods 6010B and 7471; and
- Hexavalent chromium by EPA Method 7199.

The laboratory results indicate that VOCs, SVOCs, PAHs and hexavalent chromium were not detected above laboratory detection limits. Aroclor-1254 was detected at concentrations of 25 and 89 micrograms per kilograms ($\mu\text{g/kg}$). The detected concentrations of the above-listed chemicals are below the residential preliminary remediation goals (PRG) (USEPA, 2004). Lastly, TPH was detected at concentrations of 7 and 25 milligrams per kilogram (mg/kg). Although no PRG exists for TPH, the detected concentrations are below 100 mg/Kg (common regulatory guidance threshold), and no VOC or SVOC chemicals were detected which are the primary risk-based chemicals in TPH.

Metals were also analyzed and are summarized in the following table. The detected metals concentrations were compared to the Southern California background concentrations of metals (Cal-EPA, 1992) and any concentrations that exceeded the maximum background concentration were bolded.





Analyte	Sample Name		Background Concentration	
	SP25 051305 0101	SP25 051305 0102	Min	Max
Aluminum	15,400	14,700	NA	NA
Arsenic	5.1	8.9	1.8	15.2
Antimony	1.4B	0.75B	0.12	1.9
Barium	132	115	23	560
Chromium	23.4	29.2	5.8	32.6
Beryllium	0.57J	0.63J	<0.1	1.2
Lead	4.9	5.7	2.5	189.4
Selenium	1.4	1.8	NA	NA
Cobalt	8.2	7.8	1.6	23.2
Copper	20.3	23.9	3.8	54
Molybdenum	0.99B	2.1	0.15	1.4
Nickel	18.9	24.3	3.5	28.2
Vanadium	46.9	55.3	18	84.8
Zinc	52.6	59	10.3	247
Mercury	ND	0.022B	0.1	0.6

Note: Concentrations reported in mg/kg.

ND = Not Detected

NA = Not Applicable

Although one of the molybdenum samples exceeds the maximum literature review value for Southern California, the detected value is less than the 12 mg/kg upon which the RWQCB shallow soil closure was based. The detected metals concentrations were also compared to the California Hazardous Waste Criteria. The results were less than ten times the soluble threshold limit concentration (STLC), the criterion for defining a waste as non-hazardous.

Based on the above analysis of the 2,000 yard stockpile, the following observations are summarized:

- Metals concentrations are less than regional background values with the exception of the one molybdenum detection
- All other compounds are below their respective residential PRGs.
- TPH is less than 100 mg/Kg and VOC/SVOC chemicals were not detected
- No other indications of impacts were observed

Given the above observations, the stockpiled soil is suitable for export to the Seal Beach facility and can be transported as non-hazardous soil.

Ongoing Lot 8 construction activities may generate an additional 2,000 cubic yards of soil from the top 12 feet and in similar areas of Lot 8 as the above-discussed stockpile. This soil will also need to be exported to the Seal Beach facility. Given the extensive shallow (12 feet) soil grading and homogenization that has been performed on Lot 8, it is anticipated that these additional soils would have a similar chemical profile as those listed above and could also be transported to the Seal Beach facility under the same criteria.

If you have any questions concerning the subject matter of this letter, please contact the undersigned at (562) 733-2172.

Sincerely,
Boeing Realty Corporation



Stephane Wandel
Real Estate Manager



References

Cal-EPA, 1992, "Background Levels of Trace Elements in Southern California Soils, Draft Annual Report, California Environmental Protection Agency, Contract No. 89-T0081 by University of California, Riverside, California," June 1992.

California Code of Regulations (CCR), Title 22, Section 66261.24.

USEPA, 2004, "Preliminary Remediation Goals, Region 9," October 2004.